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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/179,156	10/26/1998	HIDEKI WATANABE	FUJS-15.541	5362

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EXAMINER
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MEHRPOUR, NAGHMEH

ART UNIT	PAPER NUMBER
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2617

DATE MAILED: 07/28/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/179,156

Applicant(s)

WATANABE, HIDEKI

Examiner

Naghmeh Mehrpour

Art Unit

2617

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on 26 February 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-35 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-35 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |                                                                                                                        |                                                                                         |
|------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                                                       | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____                                                |

***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. **Claims 1-3, 11-20, 24-30, 34-35**, are rejected under 35 U.S.C. 103(a) as being unpatentable over Hirai (US Patent Number 5,309,502) in view of Sevic et al. (US Patent Number 6,069,525).

Regarding **Claims 1-3, 17, 34-35**, Hirai teaches a radio receiver comprising plural communication systems each of which deals with a radio signal having a different power-density spectrum (cordless and cellular) radio, and an control portion 29 (see figure 1, col 3 lines 30-40, lines 50-63). The controller is used to control the positions of switches and monitors the received signals. Hirai teaches that the control portion select transceiver to be used according to the received signal (col 3 lines 50-64, col 4 lines 1-11, lines 48-60). Hirai fails to disclose that the transceivers includes plurality of amplifier (col 3 lines 50-64, col 4 lines 48-60). However Sevic teaches an amplifier circuit comprising: plural amplifiers a selection control portion 102 to select an amplifier **a waiting mode corresponding one of** the radio communication system mode, the radio receiving system further comprising: a control unit 100 which selects, an amplifier based on received radio signal, a radio communication mode from the plural types of radio communication modes, and uses an amplifier corresponding to the **selected waiting mode corresponding to the one of the amplifier radio communication mode from the plural types**

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of amplifiers (See figure 1 numerals 104a-104n, 102, Col 5 lines 37-44). Sevic and Hirai both teach a circuit that have control unit and selects different equipment based on the circuit needs. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine teaching of Sevic with Hirai, in order to enable the users to select any of the dual system that they desire.

Regarding **Claims 11, 14, 16, 18-19, 25, 28, 30**, Hirai teaches a radio receiver wherein the plural types of the radio communication system comprises a first communication system and a second communication system whose permissible noise signal levels differs from each other, the noise signal being caused to the received signal of itself due to that of the other radio communication systems which differs from the former (Col 5 lines 45-55, Col 6 lines 20-28). Hirai fails to teach that the amplifiers, and each amplifiers being set with a different bias current amount so as to each achieve an operating condition meeting the permissible noise signal level, and the bias current amount of the first amplifier is set greater than of the second amplifier. However Sevic teaches the amplifiers being each set with a different bias current amount so as to each achieve an operating condition meeting the permissible noise signal level, and the bias current amount of the first amplifier is set greater than of the second amplifier (See figures 2, 3, Col 5 lines 7-12, lines 37-42). In Figure 3, Curve 302a is for FM system and 302b for CDMA system, curve 302a shows less current than curve 302B. Therefore, it would have been obvious to ordinary skill in the art at the time the invention was made to provide above teaching of Sevic to Hirai, in, order to provide a system which works with different noise level.

Regarding **Claims 12-13, 15, 20, 24, 26-27, 29**, Hirai teaches a radio receiver comprising plural communication systems (col 2 lines 59-68). Hirai detecting circuit fails to show that whether the first or second communication system will be used, wherein if the first communication system is detected the output of the distributing switch is switched to the first amplifier, and if the second communication system is detected the output of the distributing switch is switched to the second amplifier side. However Sevic's control circuit 102 is capable to detect that whether the first or second communication system will be used, wherein if the first communication system is detected the output of the distributing switch is switched to the first amplifier, and if the second communication system is detected the output of the distributing switch is switched to the second amplifier, the control circuit determine whether a dual mode CDMA/AMPS mode of operation should be used (Col 4 lines 39-44, Col 5 lines 65-68, Col 6 lines 43-58, lines 1-5). Therefore, it would have been obvious to ordinary skill in the art at the time the invention was made to provide above teaching of Sevic to Hirai, in order to provide a dual mode communication system that can operates in two different standards (CDMA/AMPS), and benefit of a high linearity amplifier for CDMA mode, while using operates in AMPS mode with no in-band linearity requirement.

3. **Claims 4-10, 21-23, 31-33** are rejected under 35 U.S.C. 103(a) as being unpatentable over Hirai (US Patent Number 5,309,502) and Sevic et al. (US Patent Number 6,069,525) in view of Peterzell et al. (US Patent 5,930,692).

Regarding **Claims 4, 21, 31**, Hirai and Sevic does not show that a radio receiver wherein the output selection portion is entered to the down converter IF mixer. The amplifiers are each constructed as one adapted for intermediate frequency (IF) band which amplifies the radio signal of the IF band. However, Peterzell discloses a radio receiver wherein the output selection portion is entered to the down converter IF mixer 705 (See figure 7, Col 6 lines 34-42). The amplifiers are each constructed as one adapted for intermediate frequency (IF) band which amplifies the radio signal of the IF band (See figure 7, numerals 708, 710, 709, 711). Therefore, it would have been obvious to ordinary skill in the art at the time the invention was made to provide above teaching of Peterzell to the combination of Sevic and Hirai, in order to improve the system performance by enhancing the interference immunity without degrading the sensitivity receive signal level.

Regarding **Claims 5, 8-10, 23, 33**, Hirai teaches a radio receiver wherein the plural types of the radio communication system comprises a first communication system and a second communication system whose permissible noise signal levels differs from each other, the noise signal being caused to the received signal of itself due to that of the other radio communication systems which differs from the former (Col 3 lines 25-31). Hirai fails to teach that the amplifiers, and each amplifiers being set with a different bias current amount so as to each achieve an operating condition meeting the permissible noise signal level, and the bias current amount of the first amplifier is set greater than of the second amplifier. However Sevic teaches the amplifiers being each set with a different bias current amount so as to each achieve an operating condition meeting the permissible noise signal level, and the bias current amount of the first amplifier is set

greater than of the second amplifier (See figures 2, 3, Col 5 lines 7-12, lines 37-42) . In Figure 3, Curve 302a is for FM system and 302b for CDMA system, curve 302a shows less current than curve 302B. Therefore, it would have been obvious to ordinary skill in the art at the time the invention was made to provide above teaching of Sevic to Hirai, in, order to provide a system which works with different noise level.

Regarding **Claims 6-7, 22, 32**, Hirai teaches a radio receiver comprising plural communication systems. Hirai detecting circuit fails to show that whether the first or second communication system will be used, wherein if the first communication system is detected the output of the distributing switch is switched to the first amplifiers, and if the second communication system is detected the output of the distributing switch is switched to the second amplifier side. However Sevic control circuit 102 is capable to detect that whether the first or second communication system will be used, wherein if the first communication system is detected the output of the distributing switch is switched to the first amplifiers, and if the second communication system is detected the output of the distributing switch is switched to the second amplifier, the control circuit determine whether a dual mode CDMA/AMPS mode of operation should be used (Col 4 lines 39-44, Col 5 lines 65-68, Col 6 lines 43-58, lines 1-5).). Therefore, it would have been obvious to ordinary skill in the art at the time the invention was made to provide above teaching of Sevic to Hirai, in order to provide a good quality dual system.

#### ***Response to Arguments***

4. Applicant's arguments filed 2/26/03 have been fully considered but they are not persuasive.

In response to applicant's argument that, Hirai does not select a waiting mode corresponding to one of plural radio communication modes, and Sevic does not disclose the mode select signal is generated based on a received signal that has been actually received, because the structure of Sevic may be applied to a transmitter. the test for obviousness is not whether the features of a secondary reference may be bodily incorporated into the structure of the primary reference; nor is it that the claimed invention must be expressly suggested in any one or all of the references. Rather, the test is what the combined teachings of the references would have suggested to those of ordinary skill in the art. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981). Examiner states that Hirai transistors serve a switches. When the transistors are conductive, the devices are fed with electric power from the power source so devices are activated. When the transistors are nonconductive, the feed of electric power to the devices, is inhibited so the devices are deactivated. The transistors are controlled by signals outputted from a controller (col 3 lines 55-64). Sevic teaches plural amplifiers a selection control portion 102 to select an amplifier **a waiting mode corresponding one of** the radio communication system mode, the receiver control unit 100 selects, an amplifier based on received radio signal, a radio communication mode from the plural types of radio communication modes, and uses an amplifier corresponding to the **selected waiting mode corresponding to the one of the amplifier radio communication mode from the plural types** of amplifiers (See figure 1 numerals 104a-104n, 102, Col 5 lines 37-44).

In response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching,



suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, Hirai transistors serve switches. When the transistors are conductive, the devices are fed with electric power from the power source so devices are activated. When the transistors are nonconductive, the feed of electric power to the devices, is inhibited so the devices are deactivated. The transistors are controlled by signals outputted from a controller (col 3 lines 55-64). The mobile set includes a device for instructing a communication start, the device enabling the first transmitter a talking start signal, and detecting the answer signal, if the device fails to detect the answer signal, enabling the second transmitter to transmit a talking start signal. Sevic teaches plural amplifiers one amplifier may operate in digital CDMA mode, and the other amplifier may operates on analog AMPS mode. When a selection control portion 102 select an amplifier has to wait until the signal indicates that amplifier operates in high efficiency mode. For selecting AMPS, the system waits until current of the amplifier goes to zero resulting in very low average power dissipation (col 5 lines 30-53). Therefore, the control unit 100 selects, an amplifier based on received radio signal, a radio communication mode from the plural types of radio communication modes, and uses an amplifier corresponding to the selected waiting mode corresponding to the one of the amplifier radio communication mode from the plural types of amplifiers (See figure 1 numerals 104a-104n, 102, Col 5 lines 37-44). Therefore, by combining Sevic amplifiers and the radio telephone of Hirai enabling users to select any of the dual system that he/she desires.

### ***Conclusion***

5. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

6. **Any responses to this action should be mailed to:**

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Naghmeh Mehrpour whose telephone number is 571-272-7913. The examiner can normally be reached on 8:00- 6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nick Corsaro be reached (571) 272-7876.


The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

NM

July 12, 2006



MEHROOZ  
PATENT EXAMINER